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1444 7590 09/26/2008 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER PATEL, SHAMBHAVI K	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,262	<b>Applicant(s)</b> GATTEGNO, YVES	
	<b>Examiner</b> SHAMBHAVI PATEL	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/18/06</u> . | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

1. Claims 1-46 have been presented for examination.

**Priority**

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

**Information Disclosure Statement**

3. The information disclosure statement (IDS) submitted on 18 September 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the Examiner has considered the IDS as to the merits.

**Specification**

4. The original specification submitted on 18 September 2006 is incomplete. Specifically, the last sentence on page 14 of the specification is incomplete. A preliminary amendment was filed with a new set of claims on a separate page from the original specification. Thus, the portion of the specification that was on the original page 15 was omitted. Correction is required.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-46 rejected under 35 U.S.C. 112, second paragraph, as being indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - i. regarding **claim 1**, the terms “on the fly”, “orders”, “components of an operating system” and “real dialogue” are vague and indefinite. Does “order” refer to the actual command itself (i.e. a read command may be modified into a write command), or the sequence of the commands?
  - ii. regarding **claim 2**, the term “peripheral driver level” is vague and indefinite. The phrase “level of an optional hard disk server service” is vague and indefinite. There is insufficient antecedent basis for the term “network”. The word “being” is mistakenly spelled as “bein”.

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- iii. regarding **claim 3**, the terms “peripheral driver level” and “level of an optional hard disk server service” are vague and indefinite. There is insufficient antecedent basis for the term “network”.
- iv. regarding **claims 5 and 6**, the terms “client stations” has insufficient antecedent basis.
- v. regarding **claim 6**, the term “low level micro software module” is vague and indefinite.  
  
Further, Examiner notes that the claim language is confusing and the meaning of the claim as a whole is vague and indefinite. For example, the claim states “...providing an interface of the type of that provided by the micro-software having access to the data of real hard disks by the operating system started up at the client station”. It is unclear what “type” of interface is provided. There is no operating system started up at the client station--claim 1 merely states creating a representation that is *capable* of modifying the orders of loading and execution of components of the OS, not the actual loading and execution of these components.
- vi. regarding **claim 7**, Examiner notes that the limitation recites “...wherein the micro-software *could*, in the case of...use the functions made available by these PROMS...”. Thus, this limitation does not explicitly claim a micro-software that always uses the functions of the PROMS when they are available. The phrases “functions made available by a bootup 'PROM'” and “in case of computers using bootup memory programs” are vague and indefinite. Which “computers” is this referring to? There is insufficient antecedent basis for the terms “data processing network” and “network interface model”.
- vii. regarding **claim 8**, the phrase “functions made available by a bootup 'PROM'” is vague and indefinite.
- viii. regarding **claim 9**, the term “basic standard micro-software” is vague and indefinite. The phrase “BIOS, for example”, is vague and indefinite. Is BIOS being claimed?
- ix. regarding **claim 16**, the term “on the fly” is vague and indefinite.
- x. regarding **claim 21**, the phrase “...wherein a specific program called 'server software'” is vague and indefinite. Does the “server software” constitute a well-known software program that has inherent functions?

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- xi. regarding **claim 24**, the terms “certain constituent components”, “on the fly” and “effective” are vague and indefinite.
- xii. regarding **claim 25**, Examiner notes that the claim language is confusing and the claim as a whole is vague and indefinite. For example, the limitation “...as in the products 'Qualystem LiteNET PC 1.x' and 'Qualystem LAN PC 2.x' (CIFS or SMB file system) or 'Qualystem Rescue 1.x' (ISO9660/Joliet, CDFS, or UDF file system)” is vague and indefinite.
- xiii. regarding **claim 27**, the terms “significant data” and “reference station” are vague and indefinite.
- xiv. regarding **claim 30**, the term “requires an adjustment” is vague and indefinite. What “adjustment” is required? The phrase “...so that all components of the operating system on which the peripheral drivers permitting access to the emulated hard disk according to the invention depend...” is vague and indefinite. What does “according to the invention” refer to? The phrase “no longer by using the firmware functions (BIOS)” is vague and indefinite.
- xv. regarding **claim 33**, the term “explicit data reading request” is vague and indefinite. How is different from a reading request?
- xvi. regarding **claim 35**, there is insufficient antecedent basis for a “unicast”. The parent claim explicitly states that a “unicast” is not made.
- xvii. regarding **claim 36**, the phrase “...according to the invention” is vague and indefinite. What does this refer to?
- xviii. regarding **claim 38**, the phrase “suitable network protocol” is vague and indefinite.
- xix. regarding **claim 39**, the term “low level software program” has insufficient antecedent basis and the term “any suitable network protocol” is vague and indefinite.
- xx. regarding **claim 11**, the term “any suitable network protocol” is vague and indefinite.

**Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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6. **Claims 1-46 are rejected under 35 U.S.C. 101** because the claimed invention is directed to non-statutory subject matter. The Examiner asserts that the current state of the claim language is such that a reasonable interpretation of the claims would not result in any useful, concrete or tangible product. **Claim 1** is directed to a method for software emulation of hard disks of a data processing platform at the level of the operating system with parameterizable management on the fly of requests for writing and reading data. The claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for simulating the behavior of a real hard disk for the operating system. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value. All other claims are rejected by virtue of their dependency.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1-6, 11-29 and 38-46 are rejected under 35 U.S.C. 102(b)** as being clearly anticipated by **Flouris** (“The Network RamDisk: Using Remote Memory on Heterogeneous NOWs”).

**Regarding claim 1:**

**Flouris discloses** a method for software emulation of hard disks of a data processing platform at the level of the operating system with parameterizable management on the fly of requests for writing and reading data consisting in:

- a. creating a representation of a real hard disk (**page 10: NRD client asks as a normal disk**) in which the orders of loading and execution of certain components of the operating system of a data

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processing platform may be modified (**section 4.1.6: filenames ordered in random permutations**)

- b. loading on said data processing platform one or more peripheral drivers (**section 3.1: NRD client is a disk device driver**), among which at least one of the peripheral drivers permits real dialogue with a data storage support containing the data of the emulated hard disk (**section 2.1: once the driver is mounted the RamDisk operates as a regular disk**).
- c. simulating the behavior of a real hard disk for the operating system (**section 4: performance of RamDisk measured by running the software**)

**Regarding claim 2:**

**Flouris discloses** the method of claim 1 wherein the management of said data write requests that the operating system sends to the emulated hard disk is accomplished at the peripheral driver level (**section 3.1 driver controls requests**), the written data being stored according to the parameterization of the peripheral drivers in the random access memory accessible to the OS using the emulated hard disk (**page 2: RAM used to store data**).

**Regarding claim 3:**

**Flouris discloses** the method as claimed in claim 1 wherein the management of said data read requests that the operating system sends to the emulated hard disk is accomplished at the peripheral driver level (**section 3.1: driver controls requests**), the readings of previously written data being performed in the random access memory accessible to the operating system using the emulated hard disk (**page 2: RAM used to store data**)

**Regarding claim 4:**

**Flouris discloses** the method as claimed in claim 1 wherein the emulation of the hard disk is accomplished by the agency of a single monolithic peripheral driver (**section 2 1<sup>st</sup> paragraph; section 2.1: one peripheral driver controls all requests**) which communicates with the OS in the manner of a hard disk (**page 10: behaves like a normal hard disk**) and which communicates with the support containing the data of said emulated hard disk in a manner specific to this support (**section 2.2**).

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**Regarding claim 5:**

**Flouris discloses** the method as claimed in claim 1, wherein the data of the emulated hard disk or disks are accessible to the client station via a data processing network (**section 2.1: clients and servers connected through network**).

**Regarding claim 6:**

**Flouris discloses** the method as claimed in claim 1, wherein if an emulated hard disk is to be started up, a low level micro-software module is responsible for access to the data contained in said emulated hard disk by providing an interface of the type of that provided by the micro-software having access to the data of real hard disks by the operating system started up at the client station (**page 10 1<sup>st</sup> full paragraph: interface used during start up**).

**Regarding claim 11:**

**Flouris discloses** the method as claimed in claim 5, wherein at least one peripheral driver loaded and executed by the operating system of the client station provided the functions of access, via the data processing network, to the data contained in the emulated hard disks (**section 3.1: driver controls all requests**).

**Regarding claim 12:**

**Flouris discloses** the method as claimed in claim 1 wherein if the data support does not support writing in real time, or the system of hard disk emulation is parameterized not to accept the writing of data directly in the data of the hard disk (**section 2.2 not real-time**), the written data are stored in a storage space different from the data support containing the data of the emulated hard disks (**section 2.3.2: data can be stored on any one of the multiple servers**).

**Regarding claim 13:**



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**Flouris discloses** the method as claimed in claim 12 wherein the data writing requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in the RAM of the client station (**section 2.1: RAM used to store data**).

**Regarding claim 14:**

**Flouris discloses** the method as claimed in claim 12, wherein the data writing requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in the virtual memory of the client station (**section 2.3.3: virtual memory used to store data**).

**Regarding claim 15:**

**Flouris discloses** the method as claimed in claim 12 wherein the data writing requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in a data file accessible to the operating system of the client station (**section 2: clients use network to access all servers storing data**).

**Regarding claim 16:**

**Flouris discloses** the method as disclosed in claim 1 wherein the data writing requests are redirected to one and only storage space, which may be changed on the fly (**section 2.3.1: client can send data to different servers**).

**Regarding claim 17:**

**Flouris discloses** the method claimed in claim 12, wherein the storage space used for the storage may be volatile, i.e. be emptied of data that are stored in each new operating session of the client station operating system or nonvolatile so as to permit the written data of an operating session of the operating system to persist from one client station to another (**section 2; section 2.3.3: both volatile and nonvolatile memory used, such as RAM**).

**Regarding claim 18:**

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**Flouris discloses** the method as claimed in claim 1 wherein the volatile character of the redirections of the written data is determined upon initialization of the operating session of the operating system of a client station **(section 2.3.3: during configuration appropriate server determined).**

**Regarding claim 19:**

**Flouris discloses** the method as claimed in claim 1, wherein the data reading requests issued by the operating system may be performed in different storage spaces during an operating session of the OS of a client system **(section 2.2: during each session multiple servers may be used).**

**Regarding claim 20:**

**Flouris discloses** the method as claimed in claim 19, wherein the data reading requests issued by the OS to an emulated hard disk carried out in different storage spaces are following an order of priority **(section 2.2).**

**Regarding claim 21:**

**Flouris discloses** the method as claimed in claim 1, wherein a specific program called “server software” is in charge at one of the stations of the data processing network, on the one hand, of the communications via the network with the client station accessing the emulated hard disks **(section 2.1 NRD server handles communication over network with clients)**, and on the other, of accessing the data support containing the data of the emulated hard disks **(section 2.2: server handles requests by accessing appropriate data).**

**Regarding claim 22:**

**Flouris discloses** the method as claimed in claim 21, wherein if the hard disk emulation system is parameterized so that the data write requests received by the server software are intended for a specific emulated hard disk they are not redirected but stored directly in a support containing the data of the emulated hard disk itself **(sections 3.1 and 3.2: client and server can be on same machine; section 2.2 can try multiple servers)** and only client station can access said emulated hard disk at a given time **(section 2.1: functions as normal disk).**

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**Regarding claim 23:**

**Flouris discloses** the method of claim 21, wherein in order to permit several client stations to access an emulated hard disk simultaneously, the server software is capable of redirecting specifically the data write requests issued by a client station to a given storage space (**section 3.2: during one operating session multiple servers can be used**) and of redirecting the data write requests issued by another client station to another given storage space (**section 2.2: data can be directed to multiple serves**).

**Regarding claim 24:**

**Flouris discloses** allowing certain constituent components of the invention that are loaded by executed b the client stations or server software to modify on the fly or before their effective use by the operating system certain data contained in the emulated hard disk (**section 2.2 during one operating session multiple servers can be used**).

**Regarding claim 25:**

**Flouris discloses** performing emulation for the OS of the client stations at the level of the class of virtual peripherals of the file system type (**section 3.1: drivers control requests**).

**Regarding claim 26:**

**Flouris discloses** performing the emulation for the OS at the level of the class of disk peripherals (**section 2**).

**Regarding claim 27:**

**Flouris discloses** the method as claimed in claim 1, wherein the significant data contained in the emulated hard disk and are copied by a software tool executed at a references station from a real hard disk called the reference hard disk that is accessible to the OS of the reference station (**section 2: configuration process**).

**Regarding claims 28 and 29:**

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**Flouris discloses** the method as claimed in claim 27 wherein the software tool creates an image file and directory that contains the data of the emulated hard disk (**section 3**).

**Regarding claim 38:**

**Flouris discloses** the method as claimed in claim 5, wherein the server module making the data contained in the emulated hard disks available to the client stations may use any suitable network protocol (**sections 2 and 3: any network may be used for client and server**).

**Regarding claim 39:**

**Flouris discloses** the method as claimed in claim 5, wherein the low level software program executed by the client stations and permitting access to the data contained in the emulated hard disks may use any suitable network protocol (**sections 2 and 3: any network may be used for client and server**).

**Regarding claim 40:**

**Flouris discloses** the method as claimed in claim 11, wherein the peripheral driver may use any suitable network protocol (**sections 2 and 3: driver can be loaded on multiple clients**).

**Regarding claim 41:**

**Flouris discloses** the method as claimed in claim 21 wherein if the data support does not support writing in real time, or the system of hard disk emulation is parameterized not to accept the writing of data directly in the data of the hard disk (**section 2.2 not real-time**), the written data are stored in a storage space different from the data support containing the data of the emulated hard disks (**section 2.3.2: multiple servers used during one operating session**).

**Regarding claim 42:**

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**Flouris discloses** the method of claim 21 wherein the data write requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in the random access memory of the server station (**page 2: RAM used to store data**).

**Regarding claim 43:**

**Flouris discloses** the method as claimed in claim 21, wherein the data writing requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in the virtual memory of the client station (**section 2.3.3: virtual memory used to store data**).

**Regarding claim 44:**

**Flouris discloses** the method as claimed in claim 21 wherein the data writing requests issued by the client station operating system to the emulated hard disks are processed in such a way that the written data are stored in a data file accessible to the operating system of the client station (**section 2: clients can access servers**).

**Regarding claim 45:**

**Flouris discloses** the method claimed in claim 21, wherein the storage space used for the storage may be volatile, i.e. be emptied of data that are stored in each new operating session of the client station operating system or nonvolatile so as to permit the written data of an operating session of the operating system to persist from one client station to another (**section 2; section 2.3.3: volatile and nonvolatile memory used such as RAM**).

**Regarding claim 46:**

**Flouris discloses** the method as claimed in claim 16 wherein the volatile character of the redirections of the written data is determined upon initialization of the operating session of the operating system of a client station (**section 2.3.3: configuration process**).

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**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 7-10 and 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flouris ("The Network RamDisk: Using Remote Memory on Heterogeneous NOWs") in view of Burokas (US Pub. No. 2003/0208675).**

**Regarding claim 7:**

**Flouris does not explicitly disclose** the method of claim 6 wherein the micro software could in the case of computers using bootup memory of the "PXE" type (PXE bootup PROM), use the functions made available by the "PROMS" for controlling communications via the data processing network independently of the network interface model deployed. **Burokas teaches** remotely booting a computer without a disk when the computer uses PXE and

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PROM (**figure 5 506: PROM and PXE used**). At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Flouris and Burokas in order to reduce costs (**Burokas: [0002]**).

**Regarding claim 8:**

**Burokas teaches** the method as claimed in claim 7 wherein the low level micro-software is loaded in the memory of the client station and executed by the functions made available by a bootup PROM (**[0041]: client stores software**).

**Regarding claim 9:**

**Burokas teaches** the method as claimed in claim 6, wherein the low level microsoftware is loaded in the memory of the client station and executed as a component of the basic standard microsoftware of the client station, said microsoftware providing the same functions as the access serviced on real hard disks normally provided by the basic standard microsoftware (**[0033]: virtual disks behave like normal hard disks**).

**Regarding claim 10:**

**Burokas discloses** a method as claimed in claim 6, wherein the low-level micro-software is loaded in the memory of the client station from a third party data support supported as a startup peripheral by the client station (**[0028]: software loaded on client through broadcasts**).

**Regarding claim 30:**

**Flouris does not explicitly disclose** adjusting the loading sequence so that all components of the OS are loaded and usable at the moment when the OS needs to access the emulated hard disk by the peripheral drivers and not by the BIOS. **Burokas teaches** adjusting the loading sequence so that all components of the OS are loaded and usable at the moment when the OS needs to access the emulated hard disk by the peripheral drivers and not by the BIOS (**[0041]: sequence adjusted**). At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Flouris and Burokas in order to reduce costs (**Burokas: [0002]**).

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**Regarding claim 31:**

**Flouris does not explicitly disclose** the method as claimed in claim 21 wherein in order to accelerate the simultaneous access by several client stations to the same emulated hard disk whose data are contained in a data support accessible to the server station, the data are sent by the server station to the client stations with the scope of the hard disk emulation globally and at a single time by using the “broadcast” or “multicast” mechanisms instead of the “unicast” mechanisms”. **Burokas teaches** using the global, broadcast and multicast mechanisms ([0029]: **global, broadcast and multicast**). At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Flouris and Burokas in order to avoid sending data reluctantly (**Burokas: [0012]**).

**Regarding claim 32:**

**Burokas teaches** storing the streamed data by the client station in a local cache situated in the memory (real or virtual) of said client stations ([0012]: **data temporarily stored in cache**).

**Regarding claim 33:**

**Burokas teaches** the method as claimed in claim 31 wherein a reading request for data the in emulated hard disk issued by the operating system of a client station generates an explicit data reading request sent to the server station only if said data are not already present in the local cache ([0041]: **when data needed, request made**).

**Regarding claim 34:**

**Burokas teaches** the method as claimed in claim 33 wherein the data in the local cache are removed after being read by the client station so as to free up space in said local cache ([0062]: **cache emptied after data is no longer needed**).

**Regarding claim 35:**

**Burokas teaches** the method as claimed in claim 31 wherein the decision to send within the scope of the hard disk emulation according to the invention of data by multicast/broadcast or unicast is made at the server



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module level which provides the functionalities necessary for the hard disk emulation at the client stations (**[0044]: multicast and broadcast used**).

**Regarding claim 36:**

**Burokas discloses** the method as claimed in claim 31, wherein the client stations may modify their subscription to receiving the data sent via broadcast/multicast by the server station within the scope of emulation of hard disks according to the invention (**[0044]: can choose to send data to only one client**).

**Regarding claim 37:**

**Burokas discloses** the method as claimed in claim 32, wherein the client stations may erase the data from the local cache after a certain parameterizable time (**[0062]: cache emptied after data no longer needed**).

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**Conclusion**

**9. Examiner's Remarks:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shambhavi Patel whose telephone number is (571) 272-5877. The examiner can normally be reached on Monday-Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

/Kamini S Shah/

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